

AB-116U

10/081,820

IN THE CLAIMS:

Please amend the claims as indicated below.

Claim 1 (currently amended): A method ~~for~~ of treating a patient with at least one of ~~epilepsy, a metabolic disorder, a mood disorder, an anxiety disorder, chronic pain, a gastrointestinal disorder, hypertension, a cardiac disorder, a psychotic disorder,~~ a cognitive disorder, dementia, an eating disorder, ~~a sleep disorder,~~ obesity, and an endocrine disorder, a ~~movement disorder, and headache,~~ the method comprising:

providing at least one leadless stimulator having at least two electrodes disposed thereon;

implanting the at least one stimulator adjacent to at least one portion of the patient's vagus nerve;

~~providing operating power to the at least one stimulator;~~

~~using at least one external appliance to transmit stimulation parameters to the at least one stimulator;~~

~~receiving and storing the stimulation parameters;~~

generating stimulation pulses with the stimulator in accordance with one or more the stimulation parameters; and

delivering the stimulation pulses to nerve fibers adjacent to at least one portion of the vagus nerve. ~~the at least one stimulator;~~

~~wherein the stimulator has a size and shape suitable for placement of the electrodes adjacent to the at least one portion of the vagus nerve.~~

AB-116U

10/081,820

Claim 2 (original): The method of Claim 1 wherein the at least one portion of the vagus nerve comprises a portion distal to at least a superior cervical cardiac branch of the vagus nerve.

Claim 3 (currently amended): The method of Claim ~~2~~ 1 wherein the at least one portion of the vagus nerve comprises a portion distal to at least an inferior cervical cardiac branch of the left vagus nerve.

Claim 4 (currently amended): The method of Claim ~~3~~ 1 wherein the at least one portion of the vagus nerve comprises a portion distal to at least a thoracic cardiac branch of the vagus nerve.

Claim 5 (original): The method of Claim 1 wherein the stimulation pulses are delivered at less than about 50 to 100 Hz.

Claim 6-7 (cancelled)

Claim 8 (original): The method of Claim 1 wherein the stimulation pulses are delivered at greater than about 50 to 100 Hz.

Claims 9-13 (cancelled)

Claim 14 (original): The method of Claim 1 further comprising
providing at least one sensor;

AB-116U

10/081,820

using the at least one sensor to sense a physical condition; and
determining the stimulation parameters based upon the sensed condition.

Claim 15 (original): The method of Claim 14 wherein the at least one sensor is a part of the stimulator.

Claim 16 (original): The method of Claim 1 further comprising providing and implanting more than one stimulator.

Claims 17-35 (cancelled)

Claim 36 (new): The method of Claim 1 wherein the at least one portion of the vagus nerve comprises at least one or more of a pharyngeal branch and a laryngeal branch of the vagus nerve.

Claim 37 (new): The method of Claim 1 wherein the at least one portion of the vagus nerve comprises at least one vagus nerve branch innervating the patient's pancreas.

Claim 38 (new): A method of treating a medical disorder of a patient, said method comprising:

applying an electrical stimulation current to a vagus nerve within said patient with an implanted stimulator in accordance with one or more stimulation parameters to treat said medical disorder;

AB-116U

10/081,820

wherein said medical disorder comprises at least one or more of a cognitive disorder, dementia, an eating disorder, obesity, and an endocrine disorder.

Claim 39 (new): The method of claim 38, wherein a lead having a number of electrodes disposed thereon is coupled to said stimulator, and wherein said electrical stimulation current is delivered to said vagus nerve via said electrodes.

Claim 40 (new): The method of claim 38, wherein a number of electrodes are disposed on a surface of said stimulator, and wherein said electrical stimulation current is delivered to said vagus nerve via said electrodes.

Claim 41 (new): The method of claim 38, further comprising sensing at least one physical condition related to said medical disorder and using said at least one sensed physical condition to adjust one or more of said stimulation parameters.